

## AWWA 2017 Water Audit Level 1 Validation – Review Document

### Audit Information:

Utility: Crestline Village Water District      PWS ID: 3610015  
 System Type: Potable      Audit Period: Calendar Year 2017  
 Utility Representation: Larrie Davis, Karl Drew, Steve Wood, Alan Clanin, Jeanine (Customer Service)  
 Validation Date: 9/20/2018      Call Time: 8:30am      Sufficient Supporting Documents Provided: Yes

### Validation Findings & Confirmation Statement:

#### Key Audit Metrics:

Data Validity Score: 58	Data Validity Band (Level): Band III (51-70)
ILI: 0.11	Real Loss: 2.59 (gal/conn/day)      Apparent Loss: 2.97 (gal/conn/day)
Non-revenue water as percent of cost of operating system: 2.3%	

**While this system may experience low levels of loss, the audit metrics after level 1 validation indicates that advanced validation is warranted before conclusions can be made regarding the system's loss performance. At least one of the following scenarios may contribute to this result:**

- **Water Supplied (both Own Source and Imported Water) may be understated.** This can occur if supply meters are under-registering more significantly than is currently reflected in the Master Meter Error & Supply Adjustment (MIMSEA). This can also occur if the supply volumes include uncorrected inaccuracies in the data archives due to data gaps or SCADA formula errors.
- **Authorized consumption may be overstated.** This can occur if the BMAC input includes any non-potable volumes, duplication of potable volumes, or inclusion of potable volumes that are not part of the water balance. Level 2 validation on the billing database is recommended.

#### Certification Statement by Validator:

This water loss audit report has been Level 1 validated per the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and the California Water Code Section 10608.34.

All recommendations on volume derivation and Data Validity Grades were incorporated into the water audit. ☒

### Validator Information:

Water Audit Validator: Drew Blackwell      Validator Qualifications: Contractor for California Water Loss TAP

Validator Provided

## 2017 AWWA Water Audit Level 1 Validation

Water System Name:

Crestline Village Water District

Water System ID Number:

3610015

Water Audit Period:

2017

Water Audit & Water Loss Improvement Steps:

Steps taken in preceding year to increase data validity, reduce real loss and apparent loss as informed by the annual validated water audit:

Increased quantity of random accuracy testing of customer meters. Repairs and upgrades to AMI meter reading infrastructure.

### Certification Statement by Utility Executive:

This water loss audit report meets the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and the California Water Code Section 10608.34 and has been prepared in accordance with the method adopted by the American Water Works Association, as contained in their manual, *Water Audits and Loss Control Programs, Manual M36, Fourth Edition* and in the Free Water Audit Software version 5.

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Alan E. Clanin

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General Manager

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09/21/18

Executive Name (Print)

Executive Position

Signature

Date

Utility Provided